may be termed the equator of the solar motion; that is, the great circle having the apex of the sun's motion as a pole. This circumstance points to that remarkable cluster, rather than to the Pleiades, as the centre of the sidereal system, if, indeed, that system have a centre cognizable by us. When we remember that for every fixed star in the Pleiades there are hundreds in the great cluster in Perseus, the latter will seem the worthier region to be the centre of motion. I should be disposed, however, to regard the cluster in Perseus as the centre of a portion of the sidereal system, rather than as the common centre of the Galaxy.

The peculiarities of the apparent proper motions of the stars seem to me to lend a new interest to the researches which Mr. Huggins is preparing to make into the stellar proper motions of recess or approach.

III. "On Jacobi's Theorem respecting the relative Equilibrium of a Revolving Ellipsoid of Fluid; and on Ivory's Discussion of the Theorem." By I. Todhunter, M.A., F.R.S., late Fellow of St. John's College, Cambridge. Received November 23, 1869.

(Abstract.)

Jacobi discovered the theorem that a fluid ellipsoid revolving with uniform angular velocity round its least axis might be in equilibrium. Ivory discussed the theorem, and made several statements regarding the limitations of the proportions of the axis. Ivory's statements contain various errors and truths based on erroneous reasoning. The object of the present memoir is to correct Ivory's errors, to supply his imperfections, and to add something to what is already known respecting the theorem.

January 27, 1870.

ARCHIBALD SMITH, M.A., Vice-President, in the Chair.

Professor Wyville Thomson was admitted into the Society.

The Presents received were laid on the Table, and thanks ordered for them, as follows:—

Transactions:—

Cambridge, Mass.:—Museum of Comparative Zoology. Bulletin. Nos. 8–13. 8vo. *Cambridge* 1869. The Museum.

Copenhagen:—Kongelige Danske Videnskabernes Selskab. Skrifter, Nat. og Math. Afd. Bd. VIII. 1, 3, 4, 5. 4to. *Kjöbenhavn* 1868–69. Oversigt, 1868, No. 5; 1869, No. 2. 8vo. *Kjöbenhavn* 1868–69. The Society.